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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CYRIL DAVID VEILLAT and CHRISTIAAN HENRI PETER DIRKS

Appeal 2010-005247
Application 10/530,435
Technology Center 1700

Before BRADLEY R. GARRIS, PETER R. KRATZ, and
MARK NAGUMO, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-9, 16, and 17. We have jurisdiction pursuant to 35 U.S.C. § 6. Oral arguments were presented on March 10, 2011.

Appellants' claimed invention is directed to a method of making a monofilament-like product. A precursor containing at least one strand that is comprised of a spun yarn of polyolefin staple fibers (cut or broken polyolefin continuous filaments) is employed.[2] The precursor is exposed to a temperature within the melting point range of the polyolefin fibers for a time adequate to soften the staple fibers without partial melting. Adjacent staple fibers are allowed to at least partially fuse to one another and, concurrently, the precursor is stretched at a specified draw ratio. According to Appellants, the monofilament-like product made from spun yarn containing polyolefin staple fibers has, *inter alia*, improved resistance to break when subjected to abrasive conditions over a known monofilament-like product made from yarns composed of gel-spun polyolefin filaments (Spec. 1, 2, and 12-18).

Claim 1, the sole independent claim on appeal, is illustrative and reproduced below:

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[2] As explained in the Specification, "[s]ynthetic fibers are first made as continuous filaments; they can be subsequently converted into staple fibers by either cutting or stretch breaking processes" (Spec. 5, ll. 3 and 4). Spun yarn is made by spinning (pulling and twisting) strands of parallel staple fibers (Spec. 5, ll. 10-12). Appellants explain that "[a] strand of polyolefin fibres is understood to be a fibrous article like a yarn containing predominantly, i.e. 50 or more mass% of polyolefin fibres" (sentence bridging Spec 2 and 3). However, Appellants further note that the spun yarn may contain other staple fibers besides polyolefin fibers, even as a main component, as well as indicating that other additives can be included (Spec. 6, l. 5 through 7, l. 10).

1. Process for making a monofilament-like product comprising the steps of:
   a) exposing a precursor of indefinite length containing at least one strand comprised of spun yarn of polyolefin staple fibres to a temperature within the melting point range of the polyolefin fibres for a time sufficient to soften the staple fibers without partial melting and allow adjacent staple fibers to at least partly fuse to one another, and
   b) simultaneously with step a) stretching the precursor at a draw ratio of at least 1.0.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Kirkland (WO '029)	WO 91/14029	Sep. 19, 1991
Cook	6,148,597	Nov. 21, 2000
Toray Ind. Inc. (JP '646) (abstract)	JP 87015646	Apr. 08, 1987[3]

Claims 1-3, 5-9, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cook in view of WO '029. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Cook in view of WO '029 and JP '646.

We affirm the stated rejections for substantially the reasons set forth by the Examiner in the Answer, and as further explained below.

Appellants argue the claims subject to the first stated rejection together as a group (see generally App. Br.).[4] Accordingly, we select independent claim 1 as the representative claim. Appellants do not argue

[3] Our references to JP '646 are to the English language Derwent Abstract of the Japan Patent Publication, of record, and on which the Examiner relied exclusively.

[4] The Reply Brief filed November 30, 2009 is not in compliance with 37 C.F.R. § 41.41(a)(2) as it introduces new evidence into the appeal record (Reply Br. 3, n.4). Pursuant to 37 C.F.R. § 41.41(b), we do not consider the Reply Brief.

separately rejected dependent claim 4 on the basis of the added features of claim 4. Thus, we limit our discussion to claim 1 in deciding this appeal.

Appellants do not dispute the Examiner's determination that representative claim 1 differs from Cook by requiring the use of a spun yarn strand made with staple polyolefin fibers as at least part of the precursor (manufactured starting material) that is exposed to heat and stretching in making a monofilament-like product. In this regard, the Examiner found that Cook does not disclose use of polyolefin staple fibers in Cook's otherwise corresponding method of manufacturing a polyolefin fishing line from yarns of gel spun polyolefin filaments (Ans. 3).

The Examiner relies on WO '029 to evince that "yarns can be made from staple fibers of ultra high molecular weight polyethylenes in addition to continuous filaments of ultra high molecular weight polyethylenes . . ." (Ans. 3).

Based on the combined teachings of the applied references, the Examiner maintains that (Ans. 4):

> it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed staple fibers of ultra high molecular weight polyethylene rather than continuous filaments of ultra high molecular weight polyethylene as taught by Cook, in view of the teaching of WO '029 that both types of fibers were known to be suitable for fabrication into yarns and because WO '029 teaches that using staple fibers can make the yarns less expensive since it permits the use of some fibers which would have been wasted.

Appellants do not dispute that yarns can be made of staple fibers, such as taught by Cook (App. Br. 10). "Nor do Applicants dispute that staple fibers have in the past been spun into filaments" (id.). Nor do Appellants

argue that monofilament-like fiber products, such as claimed, could not have been made from precursor staple polyolefin fibers prior to Appellants' alleged contribution.

Rather, Appellants assert unexpected results for the claimed process and argue that the Examiner's proffered motivation for the proposed modification of Cook's process; that is, employing a strand containing polyolefin staple fibers in a precursor used to make Cook's monofilament-like product, lacks substantiation in the referenced section of WO '029. In this latter regard, Appellants urge that the Examiner's asserted waste conservation rationale for forming staple fibers from continuous polyolefin filaments in making a yarn as taught by WO '029 is not supported in a passage of WO '029 cited to by the Examiner (App. Br. 10, n. 4; WO '029, p. 3, ll. 10-19; Ans. 4 and 5).

Appellants' lack of motivation contention is not persuasive because the cited passage of WO '029 ought to be read in light of the earlier presented disclosure of WO '029, as an ordinarily skilled artisan would have. In the preceding disclosure of WO '029, WO '029 teaches that synthetic fiber-containing yarns are made less expensively by converting a synthetic continuous filament fiber into staple fiber first (WO '029, p. 1, ll. 11-19). As explained in WO '029, this allows for the use of some fiber that could otherwise have been wasted (id.). Moreover, waste conservation was not the only reason advanced by the Examiner for using a strand of staple fibers in the monofilament manufacturing method of Cook (Ans. 4).

It follows that, on this record, the Examiner has furnished prior art supported reasons that, on the face thereof, would have prompted one of ordinary skill in the art to employ at least a strand of polyolefin staple fibers in Cook as a known and suitable way to form a yarn precursor for the

manufacture of the monofilament-like product of Cook with a reasonable expectation of success in so doing.

Hence, the dispositive issue in this Appeal bottoms on the persuasiveness of the evidence furnished by Appellants in asserting unexpected results. The Evidence comes in the form of the Declaration testimony of Christiaan H. P. Dirks, asserting to be qualified as a named co-inventor and a person of at least ordinary skill in the art (Decl., paras. 1 and 3). The Dirks Declaration refers to the comparative evidence furnished in the Specification (Decl. paras. 6-10).

Have Appellants borne their burden to establish that the process of representative claim 1 is attended by production of a product having unexpectedly improved break resistance characteristics that is commensurate in scope with claim 1 and, if so, is the evidence is of such a character that, on reevaluation of the Examiner' case of obviousness in light of Appellants' evidence, it warrants a conclusion that proffered evidence outweighs the evidence inferring obviousness furnished by the Examiner?
We answer this compound question in the negative.

For substantially the reasons stated in the Answer, we agree with the Examiner's criticisms of the Dirks' Declaration and the Specification evidence brought to the fore in Dirks' Declaration. The comparative evidence set forth in the Specification has not been shown to be of such a character and weight as to warrant reaching a conclusion that the alleged "surprising" better abrasion resistance testified to in the Dirks Declaration could reasonably be considered as carrying Appellants' burden to establish unexpected results were accrued that are reasonably co-extensive in scope with the breadth of representative claim 1 (Ans. 4-7).

In this regard, the conclusory statements of named co-inventor Christiaan H. P. Dirks concerning expected breakage at fused borders between staple fibers during abrasion resistance testing and the Specification evidence do not reasonably establish: (1) what would have been expected prospectively by one of ordinary skill in the art, in terms of abrasion resistance, for a mono-filament-like product made from a precursor having at least one strand made from a spun yarn having staple polyethylene fibers therein and/or (2) unexpected results when using staple polyolefin fibers to form monofilament-like products in processes commensurate with the scope of the claimed process over the closest prior art (Decl. paras 1, 3, 4, 6-10; Ans. 4-7). In the absence of adequate evidence supporting either of these issues, or in the absence of credible objective evidence regarding Mr. Dirks' qualifications to speak to the knowledge and expectations of those ordinarily skilled in the relevant arts, we accord his testimony little weight.

It follows that, on reconsideration of the evidence of obviousness adduced by the Examiner taken together with the Dirks Declaration and the Specification evidence furnished by Appellants, we determine that the evidence tending to establish the obviousness of the claimed subject matter outweighs the evidence tending toward a non-obvious conclusion, on this record.

ORDER

The Examiner's decision to reject claims 1-3, 5-9, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Cook in view of WO '029; and to reject claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Cook in view of WO '029 and JP '646 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tc

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